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HONEY POT HEATH

Hon. Editor: Trevor Pescott

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The Statements and the opinions contained in the papers published in this Journal are the responsibility of the respective authors.

MEMBERSHIP

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COVER PHOTOGRAPH:

Honey-pot Heath

By Trevor Pescott.

GEELONG NATURALIST

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EDITORIAL

The problems associated with the successful and economic operation of a Club such as our own are only as large as the members within the Club allow; the key word is undoubtedly "co-operation", for the work of any executive member of Committee is proportional to the co-operation he receives from the members.

Recently, a check was made on the financial status of Club members, and the result was quite a shock; a large proportion of the members have failed to pay their dues even though a quarter of our Club year has already passed.

One fault undoubtedly lies right at the feet of the Committee - although each member is, or should be, well aware that our new Club year begins in each April, no reminder of this is sent to members at the end of the year.

To overcome this, a form for renewal of membership is now to be included in the first and second issue of each Volume of "Geelong Naturalist"; the object is to remove the sheet, and remit it with your subscription to the Honorary Treasurer.

Also shown on this renewal sheet is a new membership application which can be given to any prospective member.

Remember, co-operation is our key word!

Material for publication in "Geelong Naturalist" is also continually needed so that it is possible to maintain a high standard of publication embracing a variety of topics and styles.

Photographs too, are always needed, and these should be clear black and white prints of good contrast and printed on glossy paper.

To assist the Editor, articles should be type-written if possible, or at least written clearly so that there can be no possibility of mistaking words; place names and names of species should be printed.

TREVOR PESCOTT, Hon. Editor.

A SEABIRD'S STRANGE CARGO

By Pamela Knight, Terang.

As I sit in my oil-heated study corner looking out at the silvereyes and honeyeaters competing for sips at the honey-syrup feeders in the wintry garden - my mind wanders to the warmth of Point Lonsdale summer holidays . . . . . and from that source there is a tale to tell.

On the evening of January 21st, 1970, a holiday maker approached a flock of seagulls standing at the water's edge on the Bay beach in the Golightly Park area. His attention was immediately taken by the lone, larger very beautiful bird squatting with them on the wet sand. As the seagulls glided away, the solitary bird remained quite approachable and amenable to handling. Although to the finder the bird appeared bright of eye and plumage, alert (preening and squaking) and able to spread its wings and glide some distance out onto the water when released from his hands held high - the bird was doubtless already failing and was repeatedly washed back to the shore.

The finder then attempted to feed and care for the bird until its inevitable death on the following evening.

At this point the bird came into my possession along with a very interesting bonus in the form of a fully engorged tick which fell from its forehead.

The bird of dazzling white underbody, neck, forehead and tail had wings of deepest seal-brown and from the white forehead the head became streaky with grey-brown which deepened down the back. The sturdy bill was black and intense black continued from the bill about the eye. The legs and feet were flesh-coloured. The bird measured 16 inches in length. Its bill proclaimed "Petrel" but I was not confident of species identification with only "Cayley" on hand. So the bird was frozen and Mr. Pescott consulted. Mr. Pescott, too cautious to be definitive, so our petrel was forwarded to Mr. McEvey of the Melbourne Museum, who pronounced Pterodroma lessonii, the White-headed Petrel.

This species is described as a bird of the Southern oceans and a rare visitor to the seas of south-western, southern and south-eastern Australian mainland and Tasmania. Like other

A SEABIRD'S STRANGE CARGO (Cont'd.)

petrel species its food consists largely of fish and other marine life procured from the surface of the water. It breeds in colonies on Kerguelan, Bounty, Aukland and the Antipodes Islands. It lays a single white egg between December and January in a large-chambered burrow.

Now what of Pterodroma lessonii's parasitic cargo which had been preserved in glycerine and forwarded to Dr. J.H. Arundel of the Veterinary Clinical Centre, Werribee?

Dr. Arundel is studying tick distribution in Victoria and is not only pleased to receive specimens, but is most helpful and tireless in pursuing and supplying information as this tale will unfold.

In the case of our "Petrel tick" Dr. Arundel provisionally identified it as Izodes pterodromae, a species previously recorded only twice in Australia, once from the Wandering albatross (Diomedea exulans) on De Witt Island, Tasmania and once from a "penguin", Macquarie Island.

The species has also been described by Arthur, and English authority, from the Kerguelen petrel (Pterodroma brevirostis) and the Soft plumaged petrel (Pterdroma mollis) from Marion Island, Indian Ocean.

Exhibiting true scientific caution, Dr. Arundel then forwarded the tick to Dr. Roberts in Queensland for his confirmation, as there are three other very similar species not yet recorded in Australia, with which Ixodes pterodromae could be confused. Dr. Roberts agreed with the identification of I. pterodromae, but wrote to Professor Nixon of Hawaii for confirmation as Queensland does not have specimens of I. percavatus and I. zumpti - two of the very similar species. We await details from Professor Nixon who has replied that he has recently written a paper detailing our required information, which he expects to be published within three months!

In the meanwhile, it seems most likely that Ixodes pterodromae it is!

I asked Dr. Arundel could he advise the time taken for complete engorgement of the tick, as this might suggest how long the

A SEABIRD'S STRANGE CARGO (Cont'd.)

bird had been at sea, to which he made the following reply;

"The length of time taken to complete engorgement can vary considerably from tick to tick and even within one species. I have no knowledge of this species and I doubt that anyone does. Only the female and nymph have been described and the male and larvae are unknown".

What an involved and difficult subject for study the Ixodes fraternity appears to be. One wonders how many more Point Lonsdale summers, how many more windswept Terang winters, indeed how many centuries before the strange life cycles of such strange small creatures will be fully understood by any of us.

* * * * *

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THE PERPETUAL FORCES OF NATURE

By L. Elms

Ever since the time of the Creation of our World and the Universe, estimated by scientists as being some billions of years ago, we have been surrounded by many important forces in the Realm of NATURE, most of which are invisible.

Unquestionably the most important is the FORCE OF GRAVITY, without which we could not exist, as walking, sitting, preparing meals, water supplies, sporting activities etc. would be impossible if this essential Force suddenly ceased. This essential force is quite invisible, but has recently been the subject of close study by the Astronaughts, who have compared it with the Force of Gravity on the Moon.

Another invisible but perpetual force is the magnetic field which encompasses the Globe from the North magnetic Pole to the South magnetic Pole. Without this force, navigation of planes and ships as well as normal survey work by the use of the compass, would be quite impossible. Bees, ants, and migratory birds may make use of this Magnetic Force.

The daily turning of the earth on its axis is yet another perpetual force which gives us our warm sunny days, and the cooler hours of darkness during the night, which are so essential to all forms of life - both human beings and all forms of Natural History.

This rotation of the earth results also in the apparent rising and transit of the moon across the sky, without which we would have no tides in the oceans, and all the marine life along our shorelines might cease to exist if the tides ceased to rise and fall each day.

The Seasons of the Year, ranging from fertile Springtime to chilly Winter, result from the continual movement of the Earth in an elliptical orbit around the Sun, and without these Seasons to stimulate reproduction in the vegetable and animal kingdoms, our continued existence would be doomed. Associated with these Seasonal Changes are the changes in our climatic conditions, giving us - as a general rule - soaking rains in the Winter, and a warmth in the Summer to stimulate all growth on the face of the earth.

THE PERPETUAL FORCES OF NATURE (Cont'd.)

It can thus be seen that we have been wonderfully and perpetually endowed with many PERPETUAL FORCES of NATURE, which - unfortunately - we are prone to take for granted, without studying the tremendous significance they have in enabling life to continue in the Animal, Plant, and Bird Kingdoms, as well as continuing our own human existence.

* * * * *

THE BARN OWL CAME INDOORS

By Trevor Pescott

The winter of 1970 has brought to the Geelong district an enormous influx of Barn Owls (Tyto alba); many of the birds are very thin, obviously suffering from malnutrition, and the cold weather has killed a large number of the birds.

Owls have been recorded in some odd places and under strange circumstances, but perhaps the most unusual on record is one which occurred in a house in Churchill Avenue, West Geelong.

It is a double-storey house, and the owner was asleep in the upstairs bedroom one mid-winter night; she had left the top window partly open, and during the early hours of the morning was wakened by the fluttering of a bird.

When she investigated, she found a Barn Owl perched on the dressing table!

Since it was early morning, she went back to sleep, and when she awakened again about 7.00a.m., she found the Owl perched on top of the wardrobe, settling down to a cosy day's sleep.

How the Owl found the open window is hard to understand, and even more strange was the willingness of the bird to come inside the house.

Several years ago, a pair of Barn Owls nested in the screen at the Moolap drive-in theatre; one of the owlets banded there was later recovered in South Australia, indicating the manner in which these birds will travel long distances in nomadic wanderings.

WILDFLOWER STUDY TOUR TO GERALDTON

By P.L. Fry

During an enjoyable month's long service leave last September in Western Australia, it was a pleasure to embark on a Parlor coach Wildflower Study Tour to Geraldton. Led by a botanist from King's Park, we were continually advised of the passing countryside and points of interest all the way.

Travelling Red Hill Road towards Toodyay, climbing the Darling Range, we passed many lovely picnic spots, and many varieties of Eucalypts (Manna, Wandoo, Red gum and some Jarrah) with lesser shrubs were noted.

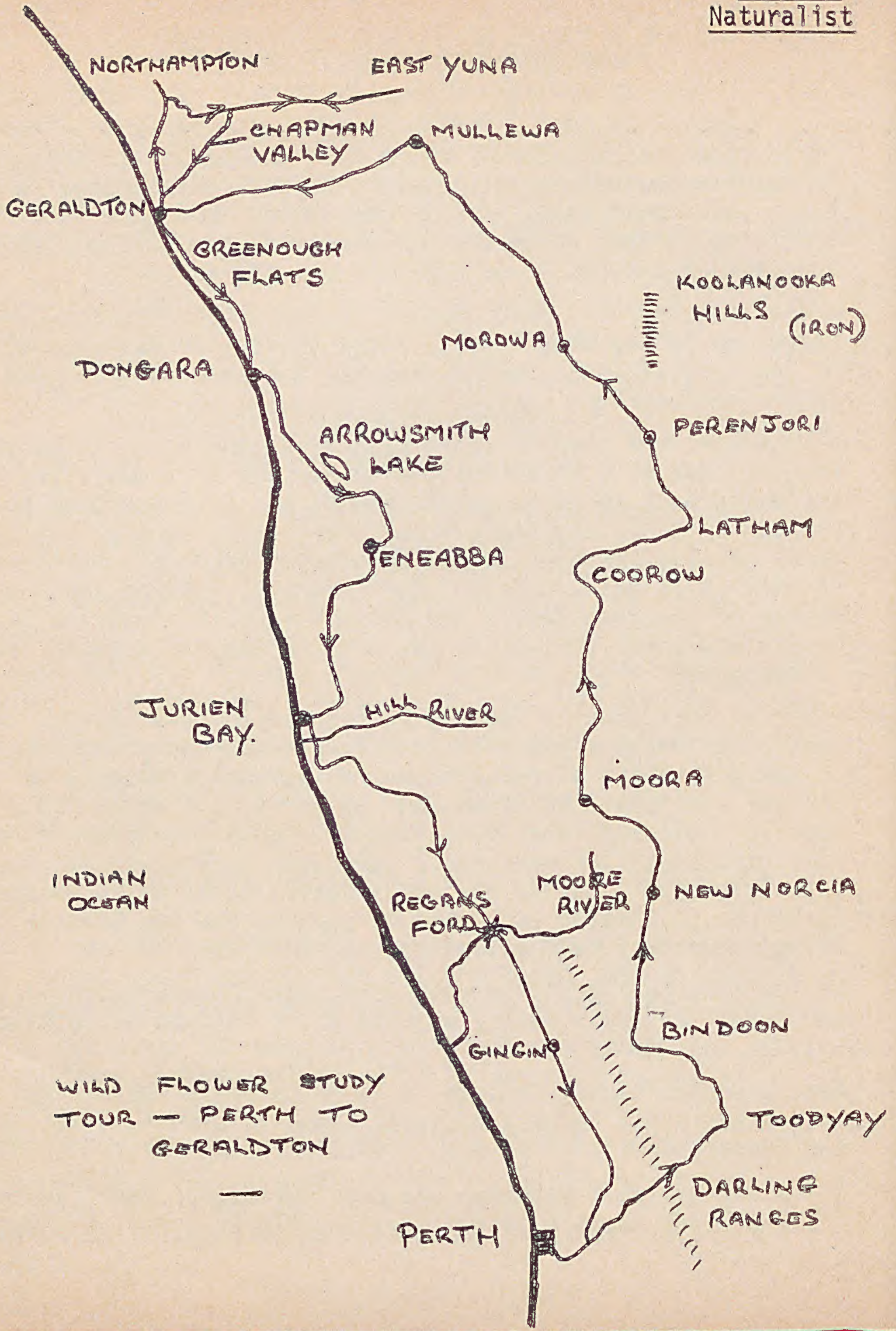
Wandoo bark was used in early days as a tanning bark; Wandoo country, due to a poisonous pea plant, was previously left uncleared because of danger to stock, but with improved clearing methods this has now been largely overcome. Nearly 1 million acres per year is now cleared, and being sandstone and granite country it is much in demand for farmlands. Noted here was a member of the fern family the macrazamia palm; later we found many old plants, further North, with as many as a dozen large "pineapples".

After a short stop at Toodyay we crossed the Avon River, which lower down becomes the Swan, and passed the early Drummond Home; in the early days of Western Australia, John Drummond, on arrival was appointed Government Botanist, but being badly treated, selected land round Toodyay. On his excursions he collected many specimens which were sent to England for further identification. He, or his descendants, later selected other farmlands northwards to beyond Geraldton, one son eventually being speared by the natives near Northampton.

On the tour nearly all lunches were taken picnic-style beside the road; this was greatly enjoyed as it allowed us to botanise without loss of time.

Near Bindoon, Keaney College, a large Catholic College was inspected; built largely of local stone it blends in well with the countryside.

All along the way, although the countryside has been cleared, the roadsides carry a fairly good wildflower cover; although in



WILD FLOWER STUDY TOUR — PERTH TO GERALDTON

WILDFLOWER STUDY TOUR TO GERALDTON (Cont'd.)

some places this has been cleared away also.

After the first night at Moora, we soon found ourselves in savannah country where casuarinas and acacias took over from the larger trees. A large native Hybiscus in flower right alongside the roadway was much admired. We saw more further north although the plants were not as large as these.

Leaving the Highway at Latham the road to Coorow was across red sandy loam with flat topped laterite hills and a lot of salt pans. Devoted mainly to wheat and sheep farming, the salt pans have a self-sealing surface to conserve moisture in dry seasons.

Nearing Morowa, in the distance to the right could be seen the iron mine in Koolanooka Hills, the whole hill being cut away is a great scar on the landscape. This iron is railed in 2000 ton train loads 140 miles to Geraldton for shipping to Japan and elsewhere.

Sturt Desert pea is being cultivated in a small plot in the main street of Morowa.

Due to the dry season, although prolific, the everlasting flowers were nowhere near as large and colourful as in previous years.

Finally after searching many miles of roadside beyond Morowa Wreath Leschenaultea was found flowering on the laterite roadside. This leschenaultea grows like a tussock of grass and flowers round the outside like a wreath, hence its name.

Time was running out so we hurried along for Geraldton, arriving about 7.00p.m. instead of 5.30p.m.

Roaming round Geraldton we saw many old and new buildings. At the new Civic Centre are housed several trophies of the "Batavia" wrecked 300 years ago on the Abrolhos Islands about 40 miles off shore Due to the pleasant climate and magnificent beaches, Geraldton is a very popular holiday town. A million tons of iron ore, 1/3 of the state's wheat, and huge quantities of crayfish are shipped away each year.

From Geraldton north to Northampton through undulating country then eastward to East Yuna Reserve where we met Mr. & Miss McGauran who, in the time available showed us many of the 350

WILDFLOWER STUDY TOUR TO GERALDTON (Cont'd.)

varieties of plants and some of the 140 birds found in the reserve. Then back to Geraldton via Chapman Valley and on again next day south across the Greenough Flats where we saw many of the Greenough Gums, through Dongara, across many miles of heathland to a delightful lunch at Eneabba,prepared by a devoted band of ladies who travel up to 40 miles every third day to serve lunch. Near Eneabba we passed a great forest of Banksia grandis where the flowers were like Chinese lanterns for as far as one could see, also a small thicket of a rarer Banksia elegans. The heathlands round here and on to Jurien Bay contained many verticordia or feather-flower. Black Kangaroopaw, lots of Catspaw, and Red and Green Kangaroopaw Synaphens, Hibbertras, Dryandras etc. From Eneabba to Jurien Bay the vegetation was much the same but we were greatly impressed by the huge areas of smokebush.

From Jurien Bay, next day south along the coast to near Cervantes, huge drifting sand dunes then inland and south to Regan's Ford was much the same country although round Regan's Ford we again entered York gum and other tree forests. Particularly noticeable were several Eucalyptus Macro carpus or "Rose of the West" in bloom. At Gin Gin we found Green Kangaroopaw, and in the cemetery Catspaw and Red and Green Kangaroopaw have cross-pollinated each other producing many wonderful colors.

And so back to Perth after a truly delightful and very interesting tour of some 800 miles.

Some Botanical Notes for the Tour:

To Moora -

Grevillea synapheae
Daviesia dielsii
Dampiera linearis
Hibbertia mineata
Boronia ovata
Hypocalymma augustifolia (Swan River Myrtle)
Synaphea farosa

Grevillea pilulifera
Daviesia pectinata (Staghorn bush)
Dampiera pectinata
Hibbertia lasiopus
Leschenaultia blue and yellow
Vertuordia picta (Feather flower)
Dryandra polyaphala (Parrot bush)

To Geraldton -

Hibiscus hueglii (native hibiscus)
Kerandrenia integrifolia
Melaleuca uncinata

Leschenaultia macrantha (Wreath)
Petrophila macrostigia
Melaleuca namatophylla (Paperbarks)

WILDFLOWER STUDY TOUR TO GERALDTON (Cont'd.)

East Yuna Reserve and Northampton -

Balaustion microphyllum
(native pomegranite)
Threlkeldia
Verticordia monodilpha
(feather flower)
Eumophila clarkei (Poverty bush)

Grevillea diebiana
Keraudrenia hermaniafolia
(fire bush)
Verticordia chrysantha
(feather flower)
Diplotaena grandiflora
(Native rose)

Dongara and Jurien Bay -

Dryandra fulcata (Parrot bush)
Banksia elegans
Contspermum recurvum (Smoke bush)
Lambertia inermis
Numerous Acacia, Eucalypt, Casuarina

Pityrodia axillaris (native foxglove)
Lachnostachys brevispicata
(Lamb's tails)
Lasiopetallum
Burtonin scabra

Anigosanthos manglesii / humulis/ viridis (Kangaroo & Cats paw)
Macropidia fuliginosa Black Kangaroopaw

* * * * *

NATIONAL PARKS ASSOCIATION EXCURSION

The V.N.P.A. is holding an excursion to the Brisbane Ranges on Sunday, October 4th; travelling by Vintage train, and stopping at Moorabool railway station, then to Lethbridge for lunch; moving on to Meredith the group will board buses, then to the Steiglitz bush for a bush walk, before re-boarding the buses and back to the train.

For further details, contact Mr. J. Hunt (telephone 66.1281) or Mr. T. Pescott (telephone 43.4368); it should be a most enjoyable day.

* * * * *

BEACH-WASHED!

By Ian Woodland

On December 24th 1969, I was driving along the Torquay Bream Creek Road and noticed an adult Wedge-tailed eagle standing among the tussocks. I stopped the car but the bird did not fly away. Within a few seconds the movie camera was whirring and still the eagle remained motionless. Quietly I managed to get the tripod out of the boot and move in closer for a few close-up shots. The bird flew over the cliff edge and I filmed it again. It then rose into the air and flew out to sea.

After circling several times it plummeted into the water, much to my astonishment. It was too far out to rescue, so a dejected field naturalist walked back towards the car. I noticed several dead rabbits near the area where the eagle was first seen. Could it have been 1080 poisoning?

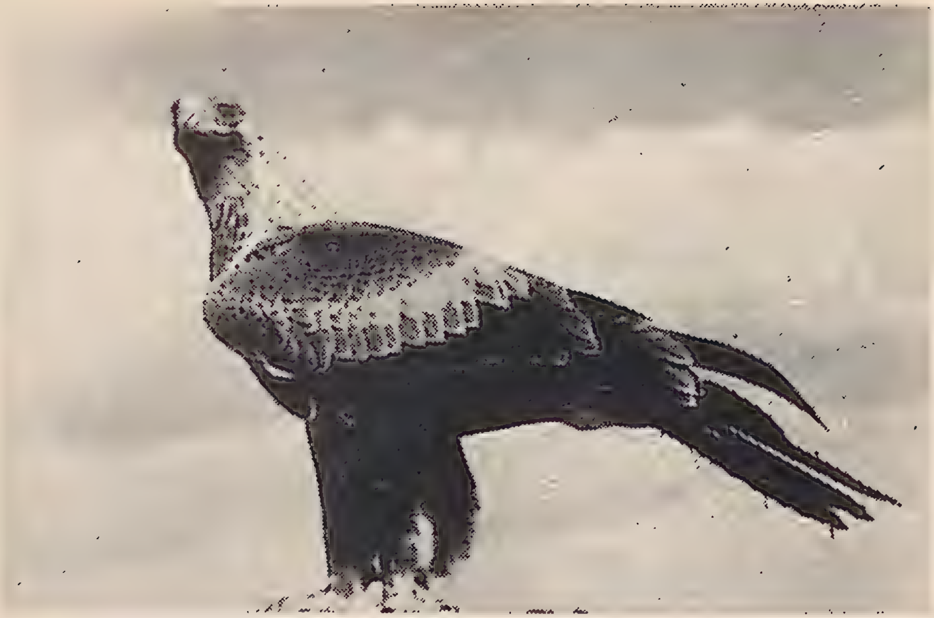
Later I reported the incident to Mr. Wheeler, President of the Geelong Field Naturalists Club.

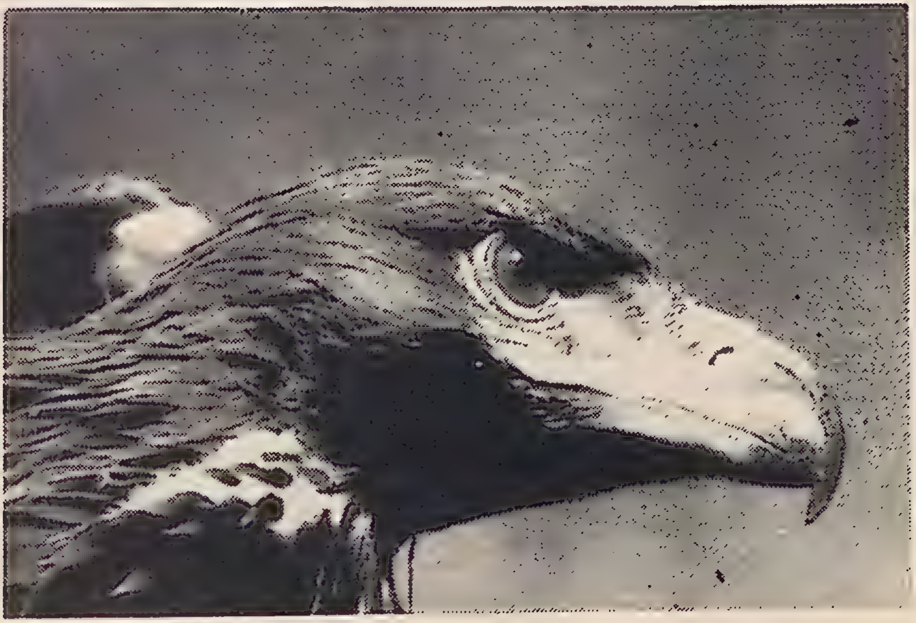
On January 2nd 1970, a water logged Wedge-tailed eagle was found in the sand dunes, 1 mile west of Point Lonsdale lighthouse in Buckley Park, by Mrs. Heinz and Mrs. Johnston. The bird had been dragged from the water by a fox or a human.

Mr. Wheeler was notified, and on January 13th 1970, he inspected the remains. It was estimated that the bird had been dead for approximately three weeks. Both talons had been cut off.

What caused the untimely death of this noble bird; natural causes or poisoning? Perhaps some readers may have suggestions. Mr. Wheeler said that it was the first time that he had had a Wedge-tailed eagle on his list of beach-washed birds.

* * * * *





WEDGE-TAILED EAGLE

Photos by Ken Stepnell.

IS THAT A BOTTLEBRUSH OR A TEA-TREE?

By Peter Fagg

Many species of the genera Leptospermum, Baeckea, Melaleuca, Kunzea, and Callistemon, are somewhat alike in appearance, and thus are often confused in people's minds. Accordingly, it is wise to talk in scientific names i.e. botanical "genus" and "species", when referring to members of this group, as common names applied to them are many and varied. (The better common names for the genera are listed below.)

Baeckea and Kunzea will be generally less well-known, but these and the other three genera are botanically closely related, so the following descriptions will cover all five.

The species of the five genera are all evergreen shrubs or small trees, with small simple, and often aromatic leaves; they belong (as does Eucalyptus) to the botanical family MYRTACEAE. Together, they comprise a large and widespread group of plants in our Australian flora.

Within Australia, there are approximately

40	species	of	Leptospermum
70	"	"	Baeckea
150	"	"	Melaleuca
20	"	"	Kunzea
20	"	"	Callistemon.

Within Victoria, there are approximately 60 species of these five genera.

The following table of descriptions was prepared with reference to only the more common Victorian members of the genera.

Most species of this group can be referred to their correct genus without the use of flower characteristics, but the use of flowers will make identification more precise. Excellent color photographs of 16 different species of these genera can be found in "Flowers and Plants of Victoria".

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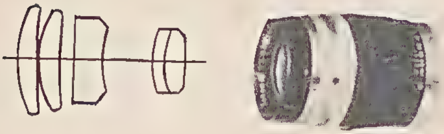
"Wildflowers of Victoria" (1967) - Galbraith.
"The Families and Genera of Victorian Plants" (1967) - Dept. of Botany, Melbourne University.
"Flowers and Plants of Victoria" (1968) - Cochrane, Fuhrer, Rotheram, Willis.
"Trees of Victoria" (1968) - Costermans
"Flora of Victoria" (1931) - Ewart.

PHOTOGRAPHERS!



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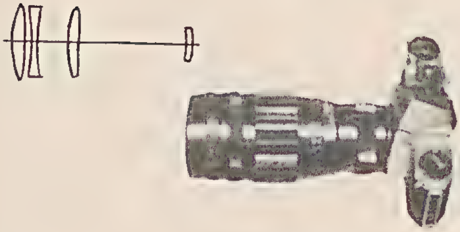

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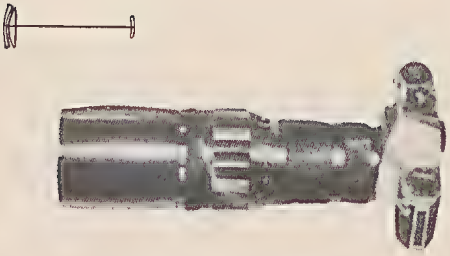

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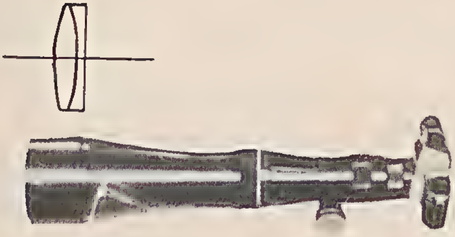

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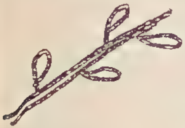
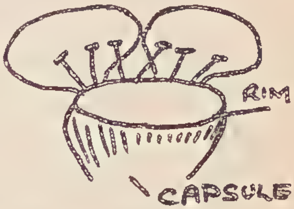
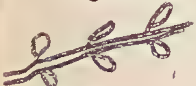
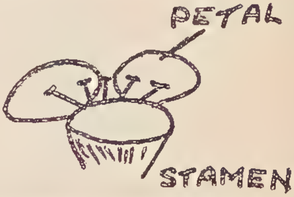
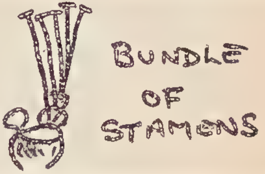
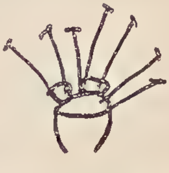
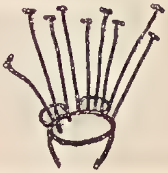
IS THAT A BOTTLEBRU

FEATURES / GENUS	FORM	TIME OF FLOWERING	FLOWER COLOUR	FLOWER ARRANGEMENT
LEPTOSPERMUM Tea-tree	Shrub/small tree	Spring Summer	White Pale pink	Mainly in leaf axils. Not in compact spikes.
BAECKEA Heath-myrtle	Low shrub/ shrub	Winter Spring Summer	White Pink Mauve	" "
MELALEUCA Paperbark and Honey-myrtle	Shrub/small tree	Spring Summer	White Cream Pink Mauve	In compact spikes -"bottlebrushes", in which leaves are not obvious.
KUNZEA Kunzea	Shrub/tall shrub	Spring Summer	White Cream Magenta	In leafy spikes or compact heads.
CALLISTEMON Bottlebrush	Tall shrub	Autumn Winter Spring Summer	White Yellow Red	In compact spike -"bottlebrushes" in which leaves are not obvious.

SH OR A TEA TREE? (Cont'd.)

LEAVES	FRUIT (bowl-shaped capsules)	PETALS (always 4-5 in number)	STAMENS	DIAGRAM OF FLOWER (sizes approx. relative)
Alternate arrangement.  Length: 1-2 cm.	Woody. Opens by radiating slits on the top. May persist for more than 1 year	Conspicuous Longer than the stamens.	Shorter than the petals. Not in bundles.	
Opposite arrangement  Length: 0.2-1 cm.	"	"	" Usually 10 in number.	
Alternate & opposite arrangement. Length: 1-2.5 c.m.	Woody. Persists on branchlet for more than 1 year.	Not conspicuous. Much shorter than the stamens.	Conspicuous. Much longer than the petals. In bundles.	
Alternate arrangement (approx.) Length: 0.5-1.5 cm.	Non-woody. Does not persist for more than 1 year.	"	Conspicuous. Much longer than the petals. Free (not in bundles)	
Alternate arrangement (approx.) Length: 2.5-8 cm.	Woody. Persists for several years.	"	"	

COLLECTING MUTTON BIRD EGGS - PHILLIP ISLAND

By Oonah McHaffie

The particular excursion of 1905, at which this photograph was taken, is not listed in "The Victorian Naturalist" but, judging by some of the participants, it was an "unofficial" group of Field Naturalists and friends.

Many excursions by "egging" parties took place before 1907 when the wildlife on Phillip Island was protected.

An article by A.J. Campbell (who appears in the photograph), entitled "At Phillip Island, Western Port", was published in "The Victorian Naturalist" of 7th April, 1904. It had previously been read, illustrated with lantern slides, before the Club on 16th November, 1903.

Frequent trips were taken to the Island to see the mutton birds and collect their eggs and the author deals with three of the camp sites near the rookeries.

1. The neighbourhood of Cape Woolamai, at the eastern end.
2. The site of the 1902 Ornithologists' Camp on the Back Beach at The Narrows.
   (This must be the same site as that shown in the photograph of 1905).
3. The neighbourhood of the Nobbies at the Western extremity of the Island.

According to Mr. Campbell, at that time Woolamai was reached by taking a sailing boat from either Hastings or Stony Point. The party was landed at a sandy bight under Red Point, and this is where the party made camp. An alternate route was by the regular steamer, the party being landed at Newhaven and its way made overland to the Cape. During this stay the author reports that other camps were near. Thirteen boats arrived with "egging" parties from different parts of Western Port, the largest numbering eleven. Four-horse conveyances came from Newhaven, and several visitors, including ladies, came on horseback.

Mr. Campbell commented that the burrows, like rabbit warrens, extended over many acres of the Cape plateau, under a covering of hore-hound (an introduced plant), pig-face weed

COLLECTING MUTTON BIRD EGGS (Cont'd.)

(Mesembryanthemum) adorned with small pink flowers, sword and tussock grass, etc. The chief rookeries were near the sea. A good rookery could be identified by the odour of the guano, and the more pungent the musty smell of the sea-birds themselves, the better the rookery, because the eggs were more plentiful. The party worked the rookeries morning and evening and rested in camp at mid-day.

To collect the eggs a crook was used. This was made from a staff of thin swamp tea-tree about five feet long, with a crook made of fencing wire at the end. This crook was inserted into a burrow, which extended from two feet to six feet, usually in a diagonal direction, in the sandy soil. If a bird was there it rapped sharply at the end of the crook with its bill. Then the "egger" fenced with the hidden bird till he felt the egg and could hook the egg and draw it to the surface.

It is amusing to read Mr. Campbell's description of the positions used when "egging" as it explains the postures of the people in the 1905 photograph. He writes: "It is interesting watching the eggers at work. The most comfortable position is bending on one knee when plying the crook in the burrows. Others prefer laboriously bending their backs instead of their knees when raking a burrow, while some sit down in a business (or, rather, unbusiness) way at work. Occasionally you come across a small party of ladies, gloved and veiled, deftly using their egg-crooks."

For the excursion at The Narrows, the outing extended over a week and about thirty persons, including a number of ladies, were present. They travelled by train, steamer, and conveyance to the site of the camp. This camp consisted of eight tents. The author writes: "The amusement of egging was carried on during the day, chiefly to supply the larder. Mutton bird eggs fried are a great delicacy and were enjoyed by all in camp."

The third mutton bird rookery, at the Nobbies, was visited while the party was encamped at "The Narrows". The party left the camp early in the morning and, after driving along what he describes as very good roads, they reached the Nobbies and found, that, as the tide was going out, they were able to

Copied from particulars written on photo given to Historical Society by A.D. Hardy.

THE NARROWS ROOKERY - EGGING - FIELD NATURALISTS CLUB EXCURSION TO PHILLIP ISLAND 1905.

COLLECTING MUTTON BIRD EGGS (Cont'd.)

scramble up the side of the Nobby where they found brooding mutton birds and penguins. The Little Nobby, between the Big Nobby and the mainland, was the most convenient place to see the penguins at home, sitting in shallow hollows upon a pair of eggs or dusky-coloured chicks.

After the mid-day meal, a start was made to return to camp. Some visited Flynn's rookery which was on the sand dunes between a small picturesque lagoon and the inner beach of Western Port. About half a mile further on (eastward) was McHaffie's rookery, which was similar in size and extent to Flynn's. Mr. Campbell's concluding notes refer to the rookery deriving its name from the original lessee of the Island, Mr. J.D. McHaffie, and he comments that some evidences of the old homestead were still there, notably the imported pines which looked strange towering above the native trees.

The most important point that comes to mind, when reading about these excursions, is that the Government did not make its move any too soon, to protect the wildlife on Phillip Island. As a mutton bird takes many years to mature, and thereafter lays only one egg per year, the taking of the eggs must have been working towards the extinction of the species quite as much as the killing of the birds.

* * * * *

EDITOR'S NOTE:

Muttonbird or Short-tailed Shearwater, is now totally protected legally in Victoria and of course the taking of eggs is now illegal. But in the early 1900's, egg-collection and the use of eggs for various purposes, was a common and quite legal procedure.

* * * * *

FERNS OF THE DISTRICT - PART 2

By E.G. Errey

Most ferns are happiest where both the soil and the atmosphere are permanently moist, where there is an abundance of rich humus, and where they are sheltered from wind, strong light, and extremes of temperature.

All these conditions prevail in the cool, deep gullies of the Otway Ranges, and there ferns of great variety grow in profusion.

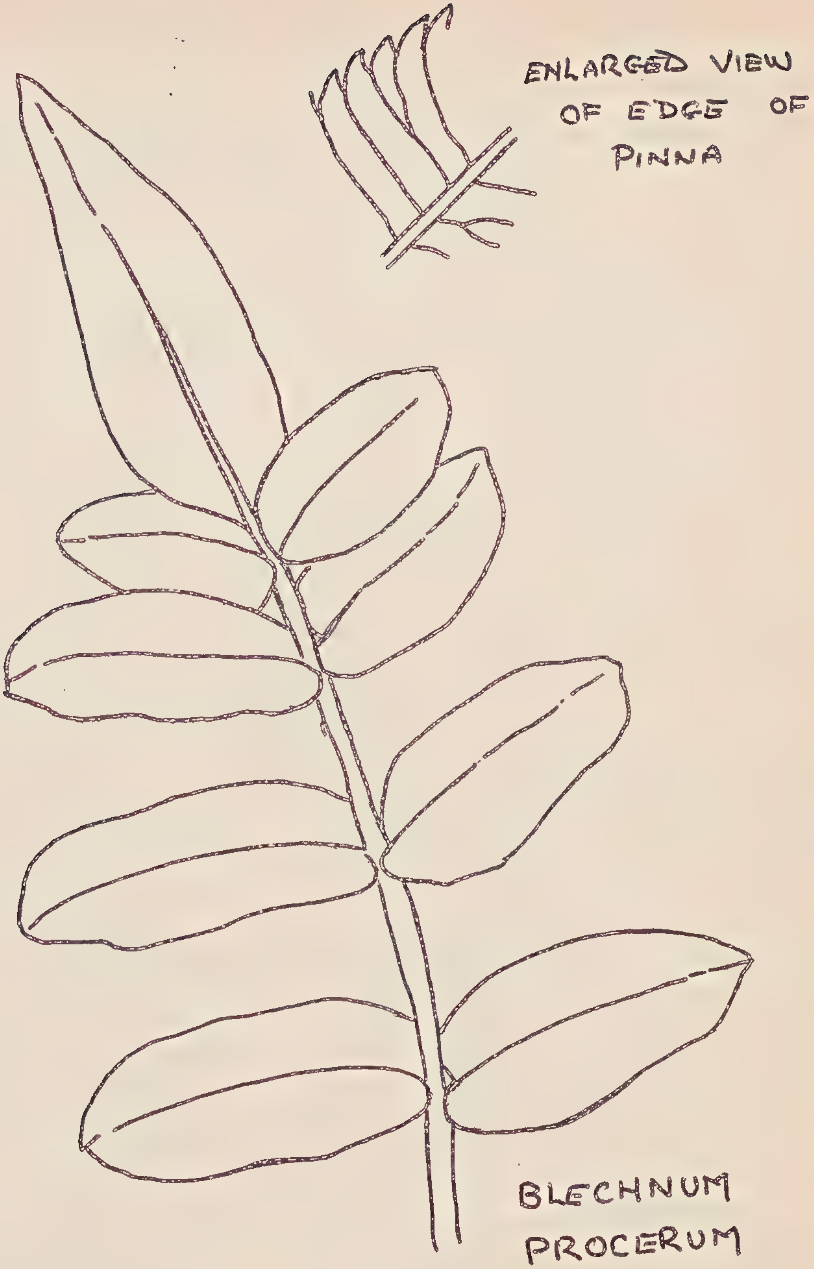
The Water Ferns comprise one group that flourishes in these ranges. As the name implies, they relish an abundance of moisture, often growing in streams, and in places forming dense thickets on boggy ground. The fronds rise from rhizomes and reach up to three feet in height. They are once divided, except in the case of Strap Water Fern, which generally has inch-wide fronds up to a foot in length.

Rhizomes of most Water Ferns are short and thick, some even forming a small butt instead of creeping along under the ground in the manner of Bracken.

The pinnae, or primary divisions of the fronds, are seldom further divided in the Water Fern group. In most cases, the pinnae in the middle of the fronds are longest, giving them the effect of tapering towards both ends. In the Hard Water Fern, however, the lowest pinnae are almost as long as the middle ones.

This species, too, has a stiffer frond than other members of the genus, hence the name. The edge of each pinna is rough to the touch. It feels somewhat like the edge of a hacksaw blade. Closer examination shows that each vein on the rather leathery surface ends between forward-pointing teeth. It looks almost as if each pinna has been formed by the fusing together of narrow pointed pinnules, the fused edges forming the veins.

Two distinct types of fronds are produced by Water Ferns. The more conspicuous foliage consists of barren fronds, while the spore cases are carried on fronds with very narrow pinnae, so narrow in fact that they look at first glance as if they



HARD WATER FERN

Sketch by E.G. Errey.

FERNS OF THE DISTRICT (Cont'd.)

have suffered insect attack, and only the midribs remain. To give an even stranger appearance, some fronds develop normal barren pinnae on one side, while the other half is fertile, consisting of narrow pinnae with spore cases.

Most species of fern have the spore cases on the underside of mature fronds, which makes them look as if they had a severe attack of the rust disease that troubles antirrhinums in the flower garden. The varied shapes and positions of the spore cases are important clues for the identification of fern species.

The spores themselves are microscopic; in fact they are single plant cells. A spore does not develop directly into a fern, but into a flat leaf-like plate of green tissue called prothallus. This has much the appearance of liverwort that often grows on top of the undisturbed soil in a flower-pot. On its undersurface the prothallus has tiny male and female reproductive organs. When mature, the male elements escape into the film of moisture beneath the prothallus, and actively swim about till they reach the flask-shaped female organs, which they enter to fertilise the egg-cells within. Each fertilised egg-cell then grows into a true fern plant. This process is much closer to that of animal reproduction than any other method met with in the plant kingdom.

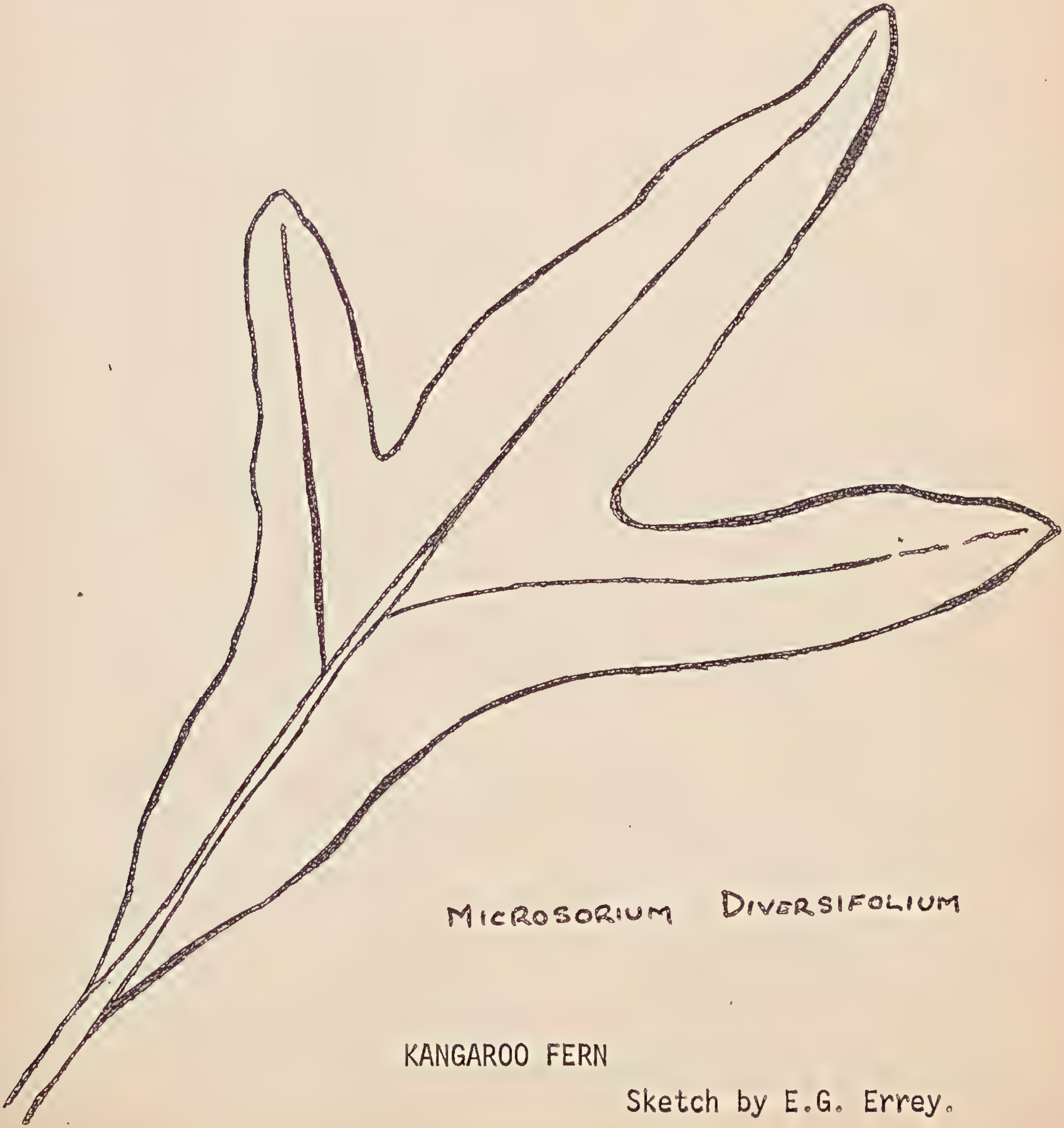
Another fern that may be confused with the Water Ferns, though it is not closely related, is the Kangaroo Fern, so called because some fronds have the three-toed appearance of a Kangaroo's foot. They are very variable, however, some being undivided, strap-like and an inch or more wide, while others have a number of well spaced lobes, shortening towards the end of the frond. The fronds are smooth to the touch, and have distinctly wavy edges.

The rhizome of this fern is a vigorous creeper frequently found on fallen logs or on tree-fern trunks. During our Benwerrin Camp-out in June, a healthy patch of Kangaroo Fern was found reaching about twenty feet up the dripping south side of a large cypress tree.

The high rainfall areas where ferns abound must have more and more territory set aside to be permanently reserved in its

FERNS OF THE DISTRICT (Cont'd.)

natural state. The opening up of such large tracts for dairying as was done in the Heytesbury scheme around Simpson, not only eradicated many lovely fern gullies, but must inevitably affect the climate and hence the vegetation of land further into the Otways.



MICROSORIUM DIVERSIFOLIUM

KANGAROO FERN

Sketch by E.G. Errey.

CONTRIBUTIONS FROM BALLARAT

Two members of the Ballarat Field Naturalists Club have written articles for "Geelong Naturalist".

The first, by Mrs. Strange is about . . .

MUD-EYES AND DRAGONFLIES

In the development of the dragonfly there is no stage of arrest or quiet as in many insects - no pupa between the larvae and adult stages. From the time it emerges from the egg it is active and a terror to many other denizens of the mud and ooze where it lives as a mudeye, the common name given to the nymph stage. Crawling warily along the bottom of the pool, the creature can hold its huge lower hinged lips with its sharp hooks back, so that it covers the lower part of its face like a mask, looking somewhat like a queer miniature bulldog. Then abruptly the gigantic lip is extruded, the hooked rim scoops up a beetle, is whisked back and the beetle is swallowed and the mask returns to position. With this continuous flickering movement water snails, mosquito larvae, etc. are disposed of. Eating, growing, moulting, the dragonfly nymph lives out its months of immaturity as one of the most savage carniverous creatures in the murky world of pond muck, even when possible making a meal of one of its own kind. Eventually, generally in Spring, it crawls up the stem of a waterweed for the last time, and halts a few inches above the surface of the water. The nymphal skin splits and a dragonfly emerges and dries its long gauzy beautiful veined wings and needle-like body.

As an adult it is no less hungry and catches its prey on the wing, accounting for innumerable mosquitoes and other insects. Its legs are bunched at the front of its body and are useless for walking. They act as a kind of basket into which insects are tumbled when the dragonfly is in flight and where they are held till they are stuffed into its huge jaws. It is a master of aerial acrobats, instant take-off, veering, banking, sudden halt, the lot and can outfly a swallow. Observers have noticed that a dragonfly is a creature of habit and establishes a regular route to which it adheres on its round of massacre. From this tree to that twig, to a certain stone

CONTRIBUTIONS FROM BALLARAT (Cont'd.)

then a tussock etc., then return to the starting point.

They are so voracious, that if a dragonfly's body is bent and the tail brought to the mouth, the dragonfly will being gobbling its own body and continue till it has eaten as much of itself as it can reach.

What a dragon!

The other article is by Mrs. Solomons; her subject . . .

LOWAN, THE MALLEE FOWL

Preferring dry semi-desert conditions as typified by mallee or mulga, the Lowan is the only mound builder in Victoria; a plump bird about 24" long mottled brown, grey and white plumage is easily camouflaged in the sunlight and shadows of the mallee. The nesting mound 10-12 ft. across and 30" above ground level, is a remarkable structure.

In March a pit is formed in the centre of the sandy mound about 2 feet in diameter and below ground level. Then with their feet raking backwards, the surrounding scrub is raked clear of fallen leaves twigs and bark which is scraped into the pit into a heap about 2 feet high and several feet in diameter.

After the Winter rains the surrounding rim of sand is thrown on to the wet vegetation and this generates heat. When an egg is due the sand is thrown back and some sand placed over vegetation. Eggs are laid in a rough circle and later eggs are deposited in circles at a higher level. After each egg is deposited the sand is raked over it and the nest resumes its conical shape.

The eggs are so large, about 1/10th weight of hen, whe lays about one a week. Incubation range is from 50 to 90 days and clutches of 12-30 eggs.

No matter what the surface temperature, the heat of the nest is always 94°F. and when a change of temperature demands the addition or removal of sand it is the male bird who is responsible.

The small Kiata reserve is an excellent nucleus for a larger reserve, or future generations may have to be content to see the Lowan as a museum specimen.

FOOD OF EASTERN SHRIKE-TIT - FALCUNCULUS FRONTATUS

By Ellen M. McCulloch, Mitcham

On 29 March 1970 I was watching a Shrike-tit on an ash tree next door when it stopped calling, held the mandibles open and pointing upwards at about 45° and I saw something I realized was a pellet being ejected to fall below. On rushing to the tree I saw that the pellet had fortunately fallen directly onto a stone, where it looked just like a small half-teaspoonful of used fine wet tea-leaves. There was nothing to hold it together and it would have quickly disintegrated and blown away, unlike the pellets from some species e.g. owls, which are usually held together by fur or feathers. The small remains were identified as hard fragments of beetles (Coleoptera) and earwigs (Dermoptera).

According to the "New Dictionary of Birds" 1964 Landsborough Thompson, pp. 608/9, birds from several families including Meliphagidae and Dicaeidae regurgitate (or cast) indigestible portions of food in the form of pellets. Unfortunately there is no specific reference given to satisfy one's curiosity about which honeyeater is involved: presumably the pellet would be as fragile as the one I found, so that finding one is sheer luck.

Lea & Gray 1935, Emu 35: 89 include in their detailed list of food of the Shrike-tit Homoptera, Coleoptera, Lepidoptera, weevils, millipedes, spiders, lady-bird beetles, wasps, vegetable matter, berries and almonds. Kellam, June 1962 Australian Bird Watcher 1:202, records a pair eating seeds of the Spreading Acacia, Acacia diffusa. Animal food seems to predominate overwhelmingly, but several people have told me that in suburban areas this species annually visits almond-trees. Detailed food records of most of our birds are inadequate, and any chance to identify and record food should not be overlooked.

I am indebted to Mr. Arthur Neboiss, Curator of Insects at the National Museum of Victoria, for identifying the insect remains.

AT RANDOM

WINGY - Best fed bird in Queenscliff:

by Jack Wheeler.

Almost twelve months ago, the plight of an injured bird, was noticed at Queenscliff, near the Fishermen's wharf, better known as 'The Creek'. This bird, later identified as a Pacific Gull of immature plumage, had a badly broken wing, so bad in fact that this bird would never fly again even though its wing was strapped up for a time by Ports and Harbour employees. Fishermen however, have adopted this bird, and now known to everybody as 'Wingy', is regularly fed as fishing boats move to and fro from The Creek; in fact Wingy has become so accustomed to this treatment that he shows distinct intelligence in recognising from a distance only those boats that bring food to him.

During this last holiday season, visitors walking along the sand spit which is Wingy's domain, immediately north of The Creek, caused Wingy to enter the water and swim away from them. This was the usual habit of a bird of the sea, but on this day there was a strong ebb tide flowing and plus a very strong northerly, and this proved too much for Wingy to overcome, and try as he did to swim back to shore, Wingy was soon swept out to sea. Fortunately for Wingy, one local fisherman, Billy Kidd noticed his plight, and manning his fishing boat, was soon on his way in a rescue bid; Wingy, still battling against impossible conditions, was eventually picked up half a mile out opposite the main tourist wharf.

Billy Kidd made sure that Wingy was returned to his domain, releasing the bird in a safe sheltered spot, and into the bargain giving a good feed of fish, as the bird was almost exhausted when finally picked up.

Whenever I visit Queenscliff, I make a point of calling at the fishermen's wharf just for the satisfaction of knowing Wingy is in good hands, and to view his progress. Wingy is moulting now, and it will be interesting to watch him eventually change to adulthood (usually at the second or third moult) of handsome black and white plumage, and with a bright orange beak.

FINED FOR TRAPPING A PROTECTED BIRD:

On Wednesday 26th, before Mr. C.J. Thompson, S.M. at the Geelong City Court, Mr. Joe Xiberras of Braybrook was fined $30 for the trapping of a Black-shouldered Kite, a protected bird.

Mr. Jack Wheeler gave evidence, that at approx. 9.50a.m. on 31st May he received a call from one of our members at Marcus Oldham College, Highton, that two men appeared to be trapping birds with spring-loaded nets. On proceeding to Highton Mr. Wheeler kept the men's activities under observation for approx. 30 minutes during which time the nets were sprung three times, but it was only on the third occasion that a hawk came over the ridge and was attracted to where the nets were set, and as it came down to earth became trapped as the nets were spring-released. The men released the hawk and were seen to place it in a bag.

The hawk was identified as a Black-shouldered Kite, a very useful species and one that is fully protected.

The police were called to intercept the men and investigate their activites. As the police arrived, rain had set in, and the two men had packed up and were loading their gear into their car. On examination of their equipment, one bag contained nets, another several tiny cages containing goldfinches and greenfinches (used as decoys to attract hawks), whilst the third bag contained the Black-shouldered Kite, which was alive and appeared to be uninjured.

At the police station, two Fisheries and Wildlife Officers took over the details for prosecution and seized the nets and other equipment.

No action was taken with the use of goldfinches and greenfinches as they are exotics and unprotected.

The Black-shouldered Kite was released by Mr. Wheeler and appeared to be none the worse for its experience.

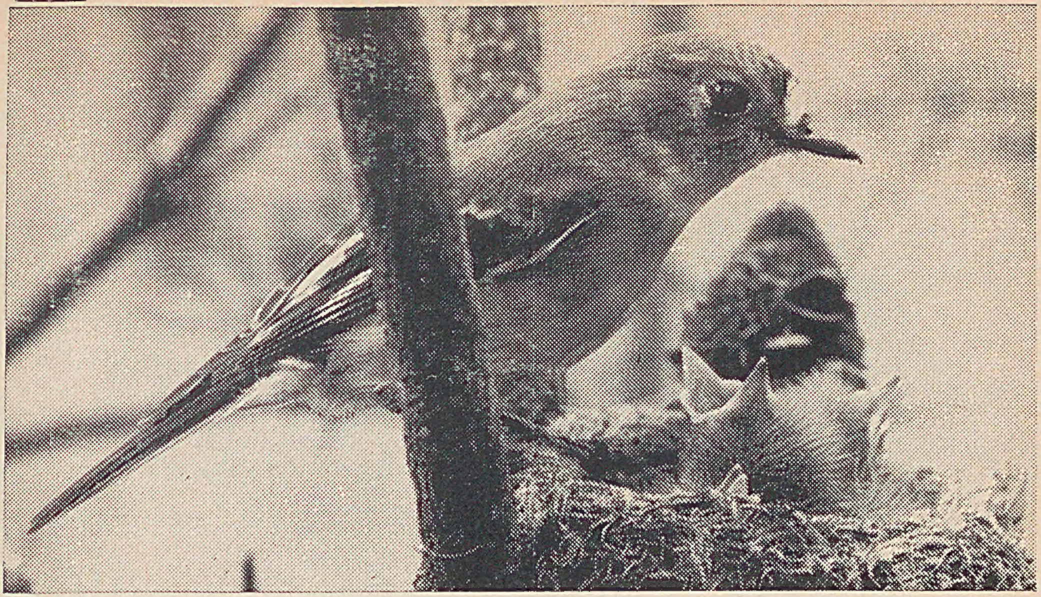


Photo by C. Tingate

SCARLET ROBIN

The Scarlet Robin is one of our most colorful birds, the male being black and white with a brilliant red chest and the female brown with a light red chest; the photograph above shows the female at her nest.

Robins feed entirely on insects, and when they have a family of two or three young ones to look after, they are very busy catching all the grubs, beetles, moths and other insects needed to feed the nestlings.

The nest is a very snug one, a little larger than a tennis ball, and made of roots, bark and other fibre, bound together with cobwebs; often the outside of the nest is made of bark off the tree in which the nest is built, so that it is better hidden and very much harder to see.

Both parents share the work of rearing the youngsters, but all nest building and most of the incubating is done by the mother; being better camouflaged, she is less likely to show hawks, ravens or other hunters where her nest is built.

Scarlet robins are found in forests and woodlands throughout south-eastern and south-western Australia.

JUNIOR PAGES (Cont'd.)

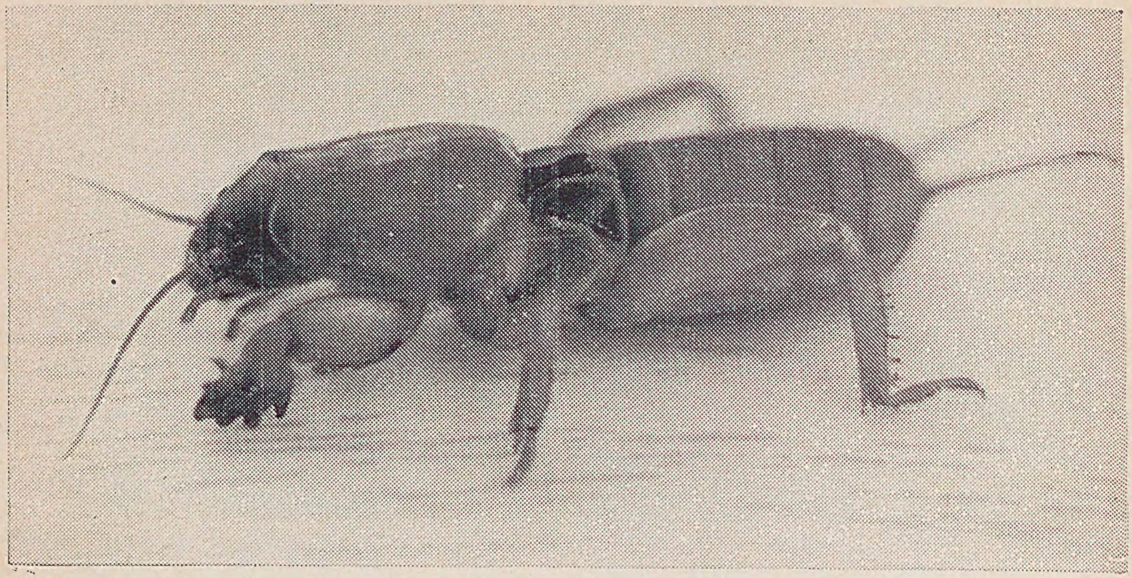


Photo by D. King.

MOLE CRICKET

During the warm summer evenings, when the garden hose has moistened the lawns and flower beds, Mole crickets can be heard singing loudly from just beneath the surface of the soil; not strictly singing, the noise is made by scraping the wing-covers together, producing a continuous rasping serenade.

Each female lays 200-300 eggs, and these remain in the end of the underground burrow with the mother until they hatch into tiny crickets rather like miniatures of the adults.

As they grow, they shed their skins several times, and each time they are bigger; the last time they moult, or change their skins, they develop wings and as adults are quite capable of flight.

The food of Mole crickets appears to be small ground-dwelling insects, and roots of plants.

The name Mole comes from the way these crickets burrow under the ground just as the animal called a Mole does.

Do not forget the JUNIOR PROJECTS this year - entries close early in November; contact the Editor for details.

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